

REMARKS

Claims 19 and 24 have been amended to correct informalities as well as to delete the term “modified” from claim 19. New claims 25 and 26 are supported by at least page 8, line 9. No new matter has been added and entry of the amendment is respectfully requested.

Claim Objections

These have been corrected by amendment.

The Rejections Under 35 U.S.C. § 112, Second Paragraph

It is believed this basis for rejection is addressed by amendment. The term “modified” no longer appears in claim 19. The intent of this term was to refer to the modification specified at position 13; thus, the amendment does not narrow the claim, but merely clarifies it. In any event, this basis for rejection is overcome.

The Rejection Under 35 U.S.C. § 112, First Paragraph

The Office objects to the scope of claims 19 and 24 with regard to the nature of the *S. erythraea* employed and to claim 19 with respect to the nature of the substituent at position 13. The basis for this latter rejection is apparently that the positive result obtained in Example 4 is not explicitly stated. Respectfully, applicants call the attention of the Office to page 8, lines 4-5. As stated, the purpose of Example 4 was “to determine whether the post-PKS enzymes in the erythromycin biosynthetic pathway might also accept unnatural substrates.” The performance of the example itself demonstrates, as the Office concedes, that it does. Since this is the purpose of the example and the example is successful, it is clear that applicants contemplated generically the

ability of the post-PKS enzymes to accept 6-dEB derivatives with alterations at position 13. The example specifies glycosylation as at least one of these post-PKS results.

Accordingly, even if one accepts that the only support for claim 19 resides in Example 4, it is clear from the wording of this example itself that the scope of claim 19 as it pertains to the nature of the macrolide to be glycosylated is appropriate.

With respect to the assertion that the claims must be limited to a particular strain, A34, respectfully, it is believed that the Office has not met its burden to demonstrate why one would expect alternative *S. erythraea* strains to be inoperable. It is clear that the strain used in Example 4 is merely an illustration, as stated on page 5, line 7. A34 is described as a mutant which is incapable of synthesizing 6-dEB, but which is able to retain the post-PKS erythromycin-synthesizing functions. As *S. erythraea* strains in general retain these functions, it is unclear to applicants why the claims should be limited to the particular strain selected for illustration. As stated in the example itself, the experiment is set forth to determine whether “post-PKS enzymes in the erythromycin biosynthetic pathway” accept unnatural substrates. As strains of *S. erythraea* in general contain post-PKS enzymes in the erythromycin biosynthetic pathway, it is clear that A34 was simply an arbitrary choice for the illustrative experiment. Accordingly, the scope of claims 19 and 24 with regard to the microorganism providing the post-PKS enzymes is appropriate.

CONCLUSION

The claims have been amended to obviate formal objections and the rejection under 35 U.S.C. § 112, second paragraph. The scope of the claims is believed proper as the deletion of the word "modified" from claim 19 makes clear that the only variation in the 6-dEB substrate is with respect to the substituent at position 13, Example 4 itself makes clear that it is merely illustrative to prove the point set forth in the claim, and further makes clear that post-PKS enzymes of the erythromycin pathway are employed. These enzymes are present in *S. erythraea* strains in general.

Accordingly, it is believed that claims 19 and 24-26 are in a position for allowance and passage of these claims to issue is respectfully requested.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 300622000212.

Respectfully submitted,

Dated: January 25, 2005

By: Kate H. Murashige
Kate H. Murashige
Registration No. 29,959

Morrison & Foerster LLP
3811 Valley Centre Drive,
Suite 500
San Diego, California 92130-2332
Telephone: (858) 720-5112
Facsimile: (858) 720-5125